

**AMENDMENTS TO THE CLAIMS**

Please amend the Claims as follows. Insertions are shown underlined while deletions are ~~struck through~~.

1 (currently amended): A non-aqueous secondary battery comprising a positive electrode, and a negative electrode~~electrode~~ made of a material capable of being doped and undoped with lithium, and a lithium salt-containing electrolyte, the battery being at least 30 Wh in energy capacity and at least 180Wh/l in volume energy density and having a flat shape with a thickness of less than 12 mm.

2 (original): The non-aqueous secondary battery according to Claim 1, wherein the positive electrode contains manganese oxide.

3 (currently amended): The non-aqueous secondary battery according to Claim 1 or 2, wherein the negative electrode is formed by using graphite having an average particle diameter of 1 to 50  $\mu\text{m}$  as active material, a resin as binder, and a metal as current collector, the negative electrode having a porosity of 20 to 35%, an electrode density of 1.40 to 1.70  $\text{g/cm}^3$ , and an capacity of electrode of 400  $\text{mAh/cm}^3$  or higher.

4 (original): The non-aqueous secondary battery according to Claim 3, wherein the negative electrode contains a graphite material obtained by graphitizing mesocarbon microbeads.

5 (currently amended): The non-aqueous secondary battery according to Claim 1 or 2, wherein the negative electrode comprises as active material double-structure graphite particles formed with graphite-based particles and amorphous carbon layers covering the surface of the graphite-based particles, the graphite-based particles having (d002) spacing ~~of~~ of (002) planes of not more than 0.34 nm as measured by X-ray wide-angle diffraction method, the amorphous carbon layers having (d002) spacing of (002) planes of 0.34 nm or higher.

6 (currently amended): The non-aqueous secondary battery according to Claim 5, wherein the negative electrode is formed by using double-structure graphite particles having an average particle diameter of 1 to 50  $\mu\text{m}$  as active material, a resin as binder, and a metal as current collector, the negative electrode having a porosity of 20 to 35%, an electrode density of ~~1.20~~ 1.20 to 1.60  $\text{g/cm}^3$ , and an capacity of electrode of 400  $\text{mAh/cm}^3$  or higher.

7 (original): The non-aqueous secondary battery according to Claim 1 or 2, wherein the negative electrode comprises as active material a carbon material manufactured by mixing at

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least one of artificial graphite and natural graphite with a carbon material having volatile components on the surface and/or in the inside and baking the mixture.

8 (currently amended): The non-aqueous secondary battery according to Claim 7, wherein the negative electrode is formed by using a resin as binder and a metal as current collector, the negative electrode having a porosity of 20 to 35%, an electrode density of 1.20 to 1.60 g/cm<sup>3</sup>, and an capacity of electrode of 400 mAh/cm<sup>3</sup> or higher.

9 (original): The non-aqueous secondary battery according to Claim 1, wherein the front and rear sides of the flat shape are rectangular.

10 (original): The non-aqueous secondary battery according to Claim 1, wherein the wall thickness of a battery case of the non-aqueous secondary battery is not less than 0.2 mm and not more than 1 mm.

11-26 (canceled)

27 (currently amended): ~~The~~A secondary-battery control method to be applied to the secondary battery of Claim 1 ~~or 11~~, comprising the steps of:

measuring at least one operational parametersparameter ~~of at different portionsat~~  
least two points in a single cell of the battery; and

controlling operations of the battery based on the results of the measurement.

28 (original): The secondary battery control method according to Claim 27, wherein the operational parameters to be measured include at least one of the voltage, tension of current, temperature, dimensions, and internal resistance of a secondary battery.

29 (original): The secondary battery control method according to Claim 27, wherein charge and discharge conditions and resting conditions of the battery, battery temperatures adjusted by heating or cooling, and pressure against the battery case are controlled based on the results of the measurement.

30 (canceled)

31 (new): The non-aqueous secondary battery according to claim 1, wherein the material capable of being doped and undoped with lithium is selected from the group consisting of a graphite material, carbon-based material, metal oxide based material, and electrically conducting polymer.

32 (new): A non-aqueous secondary battery comprising a positive electrode, a negative electrode, and a lithium salt-containing electrolyte, the battery being at least 30 Wh in

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energy capacity and at least 180Wh/l in volume energy density and having a flat shape with a thickness of less than 12 mm, wherein the negative electrode is formed by graphite having an average particle diameter of 1 to 50 nm as active material, a resin as binder, and a metal as current collector, and the negative electrode has a porosity of 20 to 35%, an electrode density of 1.40 to 1.70 g/cm<sup>3</sup>, and an capacity of electrode of 400 mAh/cm<sup>3</sup> or higher.

33 (new): The non-aqueous secondary battery according to Claim 32, wherein the negative electrode contains a graphite material obtained by graphitizing mesocarbon microbeads.

34 (new): A non-aqueous secondary battery comprising a positive electrode, a negative electrode, and a lithium salt-containing electrolyte, the battery being at least 30 Wh in energy capacity and at least 180Wh/l in volume energy density and having a flat shape with a thickness of less than 12 mm, wherein the negative electrode comprises as active material double-structure graphite particles formed with graphite-based particles and amorphous carbon layers covering the surface of the graphite-based particles, the graphite-based particles have (d002) spacing of (002) planes of not more than 0.34 nm as measured by X-ray wide-angle diffraction method, the amorphous carbon layers have (d002) spacing of (002) planes of 0.34 nm or higher, the negative electrode is formed by double-structure graphite particles having an average particle diameter of 1 to 50 nm as active material, a resin as binder, and a metal as current collector, and the negative electrode has a porosity of 20 to 35%, an electrode density of 1.20 to 1.60 g/cm<sup>3</sup>, and an capacity of electrode of 400 mAh/cm<sup>3</sup> or higher.

35 (new): A non-aqueous secondary battery comprising a positive electrode, a negative electrode, and a lithium salt-containing electrolyte, the battery being at least 30 Wh in energy capacity and at least 180Wh/l in volume energy density and having a flat shape with a thickness of less than 12 mm, wherein the negative electrode comprises as active material a carbon material manufactured by mixing at least one of artificial graphite and natural graphite with a carbon material having volatile components on the surface and/or in the inside and baking the mixture, the negative electrode is formed by a resin as binder and a metal as current collector, and the negative electrode has a porosity of 20 to 35%, an electrode density of 1.20 to 1.60 g/cm<sup>3</sup>, and an capacity of electrode of 400 mAh/cm<sup>3</sup> or higher.